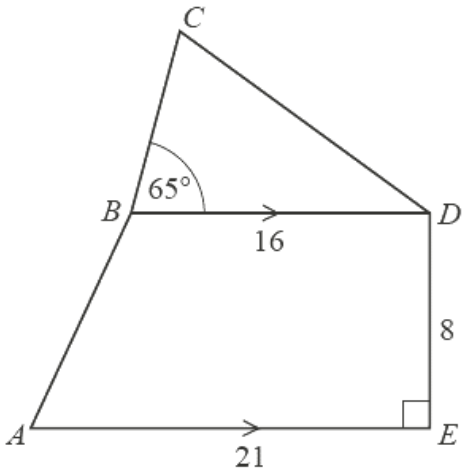
Trigonometry – 2024 O Level Math D 4024

1. June/2024/Paper_ 4024/21/No.7(b)

(b)



NOT TO SCALE

ABCDE is a pentagon.
AE is parallel to *BD*.
AE = 21 cm, *BD* = 16 cm and *DE* = 8 cm.
Angle *DEA* = 90° and angle *CBD* = 65°.

(i) Calculate angle *BAE*.

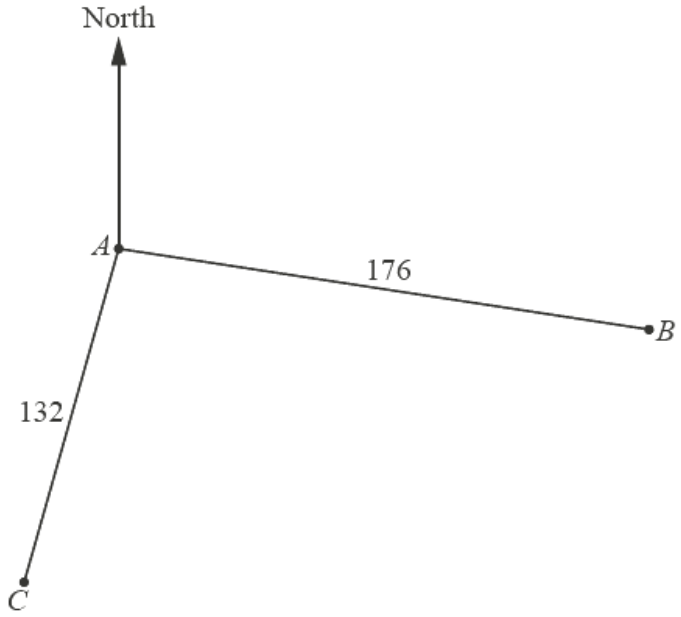
Angle *BAE* = ... [3]

(ii) The area of pentagon $ABCDE$ is $200\,\text{cm}^2$.

Calculate the length of BC.

$BC =$ ..... cm [5]

2. June/2024/Paper_ 4024/21/No.9



NOT TO SCALE

The diagram shows the positions of three ports A, B and C.
The bearing of port B from port A is 107°.
The bearing of port C from port A is 192°.
$AB = 176$ km and $AC = 132$ km.

(a) Find the bearing of A from B.

..... [1]

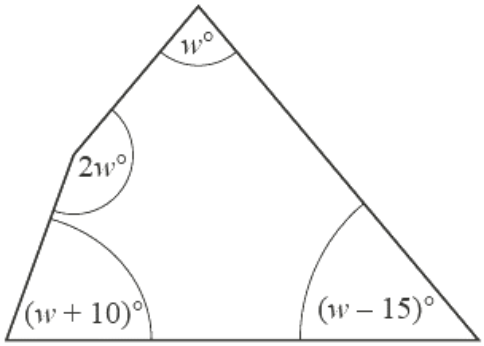
(b) Calculate BC.

$BC =$ ..... km [4]

3. June/2024/Paper_ 4024/22/No.10(b)

A shop sells two varieties of apple tree.

(b)



NOT TO SCALE

The diagram shows a quadrilateral.

Form an equation in w and solve it to find the size of the **largest** angle in the quadrilateral.

Largest angle = ... [4]